



# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/311,611	05/13/1999	FRANK B. NORMAN	SWA-3.2.016/	1463	
26345 7590 07/27/2004 GIBBONS, DEL DEO, DOLAN, GRIFFINGER & VECCHIONE 1 RIVERFRONT PLAZA NEWARK, NJ 07102-5497			EXAMINER TRAN, HAI V		
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
		DATE MAILED: 07/27/2004	14		

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary		Application	on No.	Applicant(s)				
		09/311,6 <sup>-</sup>	11	NORMAN, FRANK B.				
		Examiner		Art Unit				
		Hai Tran		2611				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHOR THE MA - Extensio after SIX - If the per - If NO per - Failure to Any reply	RTENED STATUTORY PERIOD FOR ILLING DATE OF THIS COMMUNIONS of time may be available under the provisions of time may be available under the provisions of the may be available under the provisions of the may be available under the provisions of the may be available under the maximum state of reply within the set or extended period for reply or received by the Office later than three months afatent term adjustment. See 37 CFR 1.704(b).	CATION. of 37 CFR 1.136(a). In no evinication. of days, a reply within the state tutory period will apply and will, by statute, cause the app	ent, however, may a reply be tin utory minimum of thirty (30) day Il expire SIX (6) MONTHS from ication to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status			•					
2a)⊠ Th 3)⊡ Si	esponsive to communication(s) filed as action is <b>FINAL</b> . 2 nce this application is in condition for sed in accordance with the practic	b)⊡ This action is n or allowance except	for formal matters, pro					
Disposition	of Claims			`				
4a 5)□ Cl 6)⊠ Cl 7)□ Cl	aim(s) <u>1-40</u> is/are pending in the ap ) Of the above claim(s) <u>1-21 and 37</u> aim(s) is/are allowed. aim(s) <u>22-36, 38-40</u> is/are rejected aim(s) is/are objected to. aim(s) are subject to restrict	z is/are withdrawn fro						
Application	Papers							
10)∐ Th Ap Re	e specification is objected to by the e drawing(s) filed on is/are: plicant may not request that any object placement drawing sheet(s) including to e oath or declaration is objected to	a) accepted or b) tion to the drawing(s) be the correction is require	e held in abeyance. See ed if the drawing(s) is ob	e 37 CFR 1.85(a). lected to. See 37 CFR 1.121(d).				
Priority und	ler 35 U.S.C. § 119							
a)⊡ 1. 2. 3.	Certified copies of the priority of	documents have bee documents have bee of the priority documental al Bureau (PCT Rul	n received. n received in Applicati ents have been receive e 17.2(a)).	on No ed in this National Stage				
Attachment(s)	S Deference Oils - (DTO 200)		4)	(DTO 442)				
2)  Notice o	References Cited (PTO-892) Foraftsperson's Patent Drawing Review (PT on Disclosure Statement(s) (PTO-1449 or Fo(s)/Mail Date		4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

Art Unit: 2611

### **DETAILED ACTION**

## Response to Arguments

Applicant's arguments filed on 05/03/2004 have been fully considered but they are not persuasive.

With respect to claims 22, 25, 33 and 38, Applicant argues "Aras fails to disclose the step of 'transmitting a query message over the Internet from the DBS server to an Internet Protocol address associated with the DBS server subscriber's station'. The step of transmitting a query message over the Internet from the DBS server to an Internet Protocol address associated with the DBS server subscriber's station is likewise neither disclosed in Herz nor Dillon. It is therefore, respectfully submitted that the combination of Aras, Herz and Dillon does not teach this limitation."

In response, the above claimed limitation "transmitting a query message over the Internet from the DBS server to an Internet Protocol address associated with the DBS server subscriber's station" is relied on Aras and Dillon's references in which Aras discloses Fig. 4B a Local Distribution Network's cloud between DBS server (101, 103, 121) and DBS subscriber station (111) in which the communication path is providing respective full-time communication paths (always available/ready for the user to access; see Fig. 4B); for transmitting a query message over the network (Local Distribution Network's cloud) from the DBS server to the subscriber (...The data table may also be queried at any time by the BCC...Col. 17, lines 57-63) and enabling the service subscriber's station to receive the query message and to respond to the query message

Art Unit: 2611

by sending back subscriber activities (behavior collection table) accumulated by the subscriber's station (Col. 12, lines 40-Col. 14, line 24 and Col. 17, lines 57-63);

Aras does not show the use of Internet for communicating from the DBS server to an Internet Protocol address associated with the DBS server's station; however, Dillon shows the use of Internet for communicating from the DBS server (170, 160) to an Internet Protocol address (i.e., IP address) associated with the DBS server's station (110) (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57).

Thus the combination of Aras in view of Herz and Dillon, as discussed in the previous Office Action, meets the above claimed limitation.

Applicant further argues, "Herz et al. fail to disclose how the set top multimedia terminal determines what has been viewed or how the data is stored for periodic feedback."

In response, the Examiner takes note the above Applicant's remark; however, Applicant's remark could not be imported into the claim. Therefore, the Examiner could not consider Applicant 's remark.

Applicant further argues, "Dillon, in a non-analogous application, ... Dillon fails to teach or suggest a full-time communication path between a DBS subscriber station and a DBS server using an Internet interfaces."

In response, the Examiner respectfully disagrees with Applicant's argument "Dillon fails to teach or suggest a full-time communication path between a DBS

Art Unit: 2611

subscriber station and a DBS server using an Internet interfaces" because Dillon shows a full-time communication path between a DBS station 150 and a DBS server (110, 190, 130) using an Internet interfaces (see Fig. 1) in which the Internet network is a full-time communication path because of its availability and readiness for the user to access the Internet.

In response to applicant's argument that Dillon is nonanalogous art, the Examiner notes that Aras, Herz and Dillon are all related to the same related art such as "Data communication system" because Aras shows Fig. 4B an interactive TV system including a behavior collection center with respect to a satellite TV broadcast system, Herz shows a system for controlling/customizing TV/video program broadcast to viewer based on collected viewer profile data in which the profile data is updated in a continuing basis to reflect each user's changing preferences so that TV/video programming may be updated accordingly through a CATV network system, and Dillon shows Fig. 1, a network system with a source computer having a link to the (Internet) network and a link to the satellite interface, a destination computer having a link to the (Internet) network and a link to the satellite interface, a satellite interface between the source computer and the destination computer wherein the communication is done through the communication links. Thus, the combination of Aras in view of Herz and Dillon is proper.

Applicant further argues, "...in order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to

Art Unit: 2611

modify the reference or to combine reference teachings. It is respectfully submitted that there is no such suggestion or motivation, and that the combination of these three references constitutes impermissible hindsight analysis."

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

In this case, Aras discloses a method of monitoring a DBS service subscriber's station to obtain audience rating measurements indicative of the DBS subscriber's viewing habits, comprising the steps of:

Local Distribution Network's cloud between DBS server (101, 103, 121) and DBS subscriber station (111) in which the communication path is providing respective full-time communication paths (always available/ready for the user to access; see Fig. 4B); for transmitting a query message over the network (Local Distribution Network's cloud) from the DBS server to the subscriber (Col. 17, lines 57-63) and enabling the service subscriber's station to receive the query message and to respond to the query message by sending back subscriber activities (behavior collection table) accumulated by the subscriber's station (Col. 12, lines 40-Col. 14, line 24 and Col. 17, lines 57-63);

Aras does not disclose "Providing a database of program schedule information"; "Coordinating the subscriber activities with the schedule information to provide statistic

Art Unit: 2611

of practical value to content providers". However, Aras discloses at the central facility, the data is collated/analyzed to determine or identify the program watched from viewer for statistical purpose (Col. 1, lines 50-Col. 2, lines 56; Col. 12, lines 40-Col. 13, lines 23 and col. 26, lines 44-Col. 27, lines 14).

Herz discloses providing a database of program schedule information coordinating the subscriber activities with the schedule information to provide statistic of practical value to content providers (Fig. 5; Col. 8, lines 47-55; Col. 22, lines 56-Col. 26, lines 50; Col. 41, lines 57-Col. 42, lines 25; Col. 46, lines 63-Col. 47, lines 10) and further discloses transmitting a query message over the network from the CATV headend 502 to the subscriber and enabling the service subscriber's station to receive the query message and to respond to the query message by sending back subscriber activities accumulated by the subscriber's station (Col. 41, lines 19-56; Col. 43, lines 3-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Aras with Herz so the users could receive data or video programming customized to their objective preferences as suggested by Herz (Col. 4, lines 17-31).

Aras and Herz both do not disclose "Connecting the DBS subscriber station to a 1<sup>st</sup> Internet interface"; "Connecting a DBS server to a second Internet interface"; and a "communication path between the 1<sup>st</sup> and 2<sup>nd</sup> Internet interfaces and an ISP"; Aras further does not show the use of Internet for communicating from the DBS server to an Internet Protocol address associated with the DBS server's station.

Art Unit: 2611

However, Aras discloses Local Distribution Network's cloud (path) is between DBS server (101, 103, 121) and DBS subscriber station (111) see Fig. 4B; the Local Distribution Network's cloud (path) connects the DBS subscriber station (111) to a 1<sup>st</sup> network interface (1557; fig. 15; Col. 25, lines 7-17, Col. 26. lines 33-41, col. 12, lines 40-54; col. 6, lines 30-44 and col. 24, lines 29-42) and the Local Distribution Network's cloud (path) also connects a DBS server (101, 103, 121) to a 2<sup>nd</sup> network interface (Local Distribution Network; Fig. 4) and Herz discloses a return path (telephone network; see Fig. 5) between the Set-top terminal 412 and the CATV headend (Col. 42, lines 46-56).

Dillon shows the use of Internet communication (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57) using a full-time communication path established from the established between the subscriber station (110) and an Internet Service Provider (The Internet 128; Col. 20, lines 46-57) for communicating from the DBS server (170, 160) to an Internet Protocol address (i.e., IP address) associated with the DBS server's station (110) (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57). Dillon further shows in Fig. 1 communication path between the 1<sup>st</sup> and 2<sup>nd</sup> Internet interfaces and an ISP (The Internet 128 is interpreted as ISP; Col. 20, lines 46-57) in which the communication path connects the DBS subscriber station (110) to a 1<sup>st</sup> Internet interface and the communication path further connects a DBS server (170, 160) to a 2<sup>nd</sup> Internet interface. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Aras and Herz with Dillon so to take the advantage of the conventional Internet connection to

Art Unit: 2611

reduce the cost of satellite communications by using one-way satellite link instead of two-way Satellite communication (Col. 3, lines 29-43) and furthermore, for data being sent into the network by using a "spoofing" technique to solve the problem of long propagation delays inherent in satellite transmission (Col. 1, lines 50-58) and also to provide users an alternative way to access the Internet.

In response, to applicant's argument that "the combination of these three references constitutes impermissible hindsight analysis", the Examiner submits that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper.

With respect to Claim 25, "transferring the information to a DBS data collection point having a connection to the Internet using a full-time communication path established between the subscriber station and an Internet Service Provider" is relied on Aras and Dillon's references in which Aras discloses Fig. 4B comprises DBS server (101, 103, Behavior Collection center 121) and DBS subscriber station (111) in which the communication path ("cloud" Local Distribution Network; Fig. 4B) is providing respective full-time communication paths (the network is always available/ready for the user to access; see Fig. 4B); for transferring the information (i.e. subscriber activities accumulated by the subscriber's station) to a DBS data collection point (101, 103,

Art Unit: 2611

Behavior Collection center 121) <u>over the network</u> from the subscriber to the Server (Col. 12, lines 40-Col. 14, line 24 and Col. 17, lines 57-63);

Aras does not show the use of Internet communication in which the Internet using a full-time communication path established between the subscriber station and an Internet Service Provider.

Dillon shows the use of Internet communication (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57) using a full-time communication path established from the established between the subscriber station (110) and an Internet Service Provider (The Internet 128; Col. 20, lines 46-57). Thus the combination of Aras in view of Herz and Dillon, as discussed in the previous Office Action, meets the above claimed limitation.

With respect to Claim 33, "the BDS subscriber station being further adapted to support a full-time connection to the Internet" is met by Dillon (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57 and Col. 20, lines 46-57). Thus the combination of Aras in view of Herz and Dillon, as discussed in the previous Office Action, meets the above claimed limitation.

Claim 38, "the data point supporting a full-time connection to the Internet to enable the information to be received from subscriber stations adapted to collect and send the information via the Internet".

Art Unit: 2611

In response, the above claimed limitation is relied on Aras and Dillon's references in which Aras discloses Fig. 4B a Local Distribution Network's cloud between DBS server/data point (101, 103, 121) and DBS subscriber station (111) in which the Local Distribution Network's cloud (communication path) provides full-time communication path (always available/ready for the user to access/communicate; see Fig. 4B) in which subscriber' station collects subscriber activities in a "behavior collection table" and sends the "behavior collection table" via the Local Distribution Network's cloud (communication path) to the DBS (Col. 12, lines 40-Col. 14, line 24 and Col. 17, lines 57-63); Aras does not show the use of Internet for communicating between the DBS server and the DBS server's station; this feature is relied on Dillon's teaching of using Internet for communicating between the DBS server (170, 160) and the DBS server's station (110) (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57). Thus the combination of Aras in view of Herz and Dillon as discussed in the previous Office Action, regarding the argued limitation in claim 38, is proper and meets the above claimed limitation.

Independents claims 23-24, 26-32, 34-36 and 39-40 were not discussed.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

<sup>(</sup>a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2611

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

 Claims 22-36 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aras et al. (US 5872588) in view of Herz et al. (US 5758257) and further in view of Dillon (US 5995725).

Claims 22, 25, 33 and 38-39, Aras discloses a method of monitoring a DBS service subscriber's station to obtain audience rating measurements indicative of the DBS subscriber's viewing habits, comprising the steps of:

Local Distribution Network's cloud between DBS server (101, 103, Behavior Collection center 121) and DBS subscriber station (111) in which the communication path is providing respective full-time communication paths (always available/ready for the user to access; see Fig. 4B); for transmitting a query message over the network (Local Distribution Network's cloud) from the DBS server to the subscriber (Col. 17, lines 57-63) and enabling the service subscriber's station to receive the query message and to respond to the query message by sending back subscriber activities (behavior collection table) accumulated by the subscriber's station (Col. 12, lines 40-Col. 14, line 24 and Col. 17, lines 57-63);

Aras further discloses the subscriber's station transfers the information (i.e. subscriber activities accumulated by the subscriber's station) to a DBS data collection point (101, 103, Behavior Collection center 121) over the network to the Server (Col. 12, lines 40-Col. 14, line 24 and Col. 17, lines 57-63).

Aras does not disclose "Providing a database of program schedule information"; "Coordinating the subscriber activities with the schedule information to

Art Unit: 2611

provide statistic of practical value to content providers". However, Aras discloses at the central facility, the data is collated/analyzed to determine or identify the program watched from viewer for statistical purpose (Col. 1, lines 50-Col. 2, lines 56; Col. 12, lines 40-Col. 13, lines 23 and col. 26, lines 44-Col. 27, lines 14).

Herz discloses providing a database of program schedule information coordinating the subscriber activities with the schedule information to provide statistic of practical value to content providers (Fig. 5; Col. 8, lines 47-55; Col. 22, lines 56-Col. 26, lines 50; Col. 41, lines 57-Col. 42, lines 25; Col. 46, lines 63-Col. 47, lines 10) and further discloses transmitting a query message over the network from the CATV headend 502 to the subscriber and enabling the service subscriber's station to receive the query message and to respond to the query message by sending back subscriber activities accumulated by the subscriber's station (Col. 41, lines 19-56; Col. 43, lines 3-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Aras with Herz so the users could receive data or video programming customized to their objective preferences as suggested by Herz (Col. 4, lines 17-31).

Aras and Herz both do not disclose "Connecting the DBS subscriber station to a 1<sup>st</sup> Internet interface"; "Connecting a DBS server to a second Internet interface"; and a "communication path between the 1<sup>st</sup> and 2<sup>nd</sup> Internet interfaces and an ISP"; However, Aras discloses Local Distribution Network's cloud (path) is between DBS server (101, 103, 121) and DBS subscriber station (111) see Fig. 4B; the Local Distribution Network's cloud (path) connects the DBS subscriber station (111) to a

Art Unit: 2611

1<sup>st</sup> network interface (1557; fig. 15; Col. 25, lines 7-17, Col. 26., lines 33-41, col. 12, lines 40-54; col. 6, lines 30-44 and col. 24, lines 29-42) and the Local Distribution Network's cloud (path) also connects a DBS server (101, 103, 121) to a 2<sup>nd</sup> network interface (Local Distribution Network; Fig. 4) and Herz discloses a return path (telephone network; see Fig. 5) between the Set-top terminal 412 and the CATV headend (Col. 42, lines 46-56).

Dillon shows the use of Internet communication (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57) using a full-time communication path established from the established between the subscriber station (110) and an Internet Service Provider (The Internet 128; Col. 20, lines 46-57) for communicating from the DBS server (170, 160) to an Internet Protocol address (i.e., IP address) associated with the DBS server's station (110) (Fig. 1; Col. 3, lines 45-Col. 4, lines 65+ and Col. 7, lines 50-Col. 8, lines 57). Dillon further shows in Fig. 1 communication path between the 1st and 2nd Internet interfaces and an ISP (The Internet 128 is interpreted as ISP; Col. 20, lines 46-57) in which the communication path connects the DBS subscriber station (110) to a 1st Internet interface and the communication path further connects a DBS server (170, 160) to a 2<sup>nd</sup> Internet interface. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Aras and Herz with Dillon so to take the advantage of the conventional Internet connection to reduce the cost of satellite communications by using one-way satellite link instead of two-way Satellite communication (Col. 3, lines 29-43) and furthermore, for data being sent into the

Art Unit: 2611

network by using a "spoofing" technique to solve the problem of long propagation delays inherent in satellite transmission (Col. 1, lines 50-58) and also to provide users an alternative way to access the Internet.

Claims 23, 24, 34 and 36 are met by the combined systems of Aras, Herz and Dillon, wherein Aras (Col. 17, lines 57-62) and Herz (Fig. 5; Col. 42, lines 60-Col. 43, lines 15) both discloses periodic transmission of the table or table of requested by the behavior collection center when the data table is nearing full or any combination thereof.

Claim 26, Aras further discloses that the behavior collection table (BCT) comprises turn on (power on), tuned channel, time and channel identification when changed, mute, turn off (power off), any combination of the above and timer events (Abstract Col. 14, lines 7-24).

Aras in view of Herz and Dillon do not clearly disclose a time is applied to the sound/volume is muting or the muting sound/volume is cancelled as recite in the claim. However, the collection about the time whether the sound of volume is muted or the muting sound is cancelled is more specific and detailed than just collecting the general sound/volume that is mute. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Aras in view of Herz and Dillon by including a time when the sound muting is applied and time when the sound muting is cancelled into the viewing habit of users so to determine the

Art Unit: 2611

success of the television programs being provided to users so that the cable operators are better able to plan future programming based on the actual viewing habits and advertisers are able to make better decisions about markets in which to broadcast their commercial messages.

Regarding claims 27 and 35, Aras (on the fly; Col. 17, lines 57-62) and Herz (Col. 42, lines 60-65) further disclose the collected data is reported back to the BCC or headend in real-time.

Regarding claim 28-30, Aras (Col. 17, lines 57-62) and Herz (Col. 42, lines 60-Col. 43, lines 12) further disclose periodic transmission of collected data to the collection center (BCC) or headend when the collected data/profile/habit table is nearing full or in any combination thereof.

Regarding claims 31 and 40, Aras, Herz and Dillon does not clearly disclose wherein the subscriber station posts the information to a WWW page and the data collection retrieves the information from the WWW page on a periodic basis.

Official Notice is taken that posting information/data to a WWW page and having a remote computing system to retrieve the information/data posted from the WWW page on a periodic basis via Internet is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Aras in view of Herz and Dillon to have the collected

Art Unit: 2611

data/profile/history on a WWW page so to take the advantage of the independent communication platform of the World Wide Web or Internet in which any computing systems (i.e. provider) could access and retrieve the Web page posted at the remote location (i.e. subscriber terminal).

Regarding claim 32, Aras (Col. 17, lines 57-62) and Herz (Col. 42, lines 60-65) further discloses the subscriber terminal/receiver transfers the information (collected data table/profile/history) to the data collect point (BCC/headend) in response to the query message received from the data collection point (BCC/headend) via the network (Aras ' local distribution network Fig. 4b and Herz Fig. 5);

#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Page 17

Application/Control Number: 09/311,611

Art Unit: 2611

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is 703-308-7372.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C. Grant can be reached on 703-305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht July 23, 2004

PATENT EXAMINER